REMARKS

Election/Restrictions

The Examiner maintains his restriction requirement claiming that Applicant's invention claims three different inventions. Specifically, the Examiner states that the "standard for restrictability is 'unity of invention', which requires a 'special' common technical feature, not just commonality. If the common feature is not new and non-obvious it is not 'special.'" The Examiner goes on to state that the PCT Rules on restrictability requirements apply, not the US rules. Applicant respectfully submits that even if the PCT Rules apply, the restriction requirement is improper for the following reasons.

In the Office Action dated 10 October 2008 the Examiner issued a restriction requirement claiming:

> The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Claim 11, at least, is anticipated by or obvious over US 2002/001707 and/or EP 921153. Consequently, the technical feature which links the claims, the styrene block copolymer composition, does not provide a contribution to the prior art, so unity of invention is lacking.

Thus, the Examiner is requiring restriction based upon the styrene block copolymer composition being anticipated or non-obvious over the prior art. It is this assumption that is flawed. As discussed fully below, Applicant's invention is neither anticipated nor non-obvious in light of the cited prior art. Moreover, the PCT Rules cited by the Examiner support Applicant's argument.

The PCT Rules that govern restriction requirements can be found in the MPEP Appendix T. The pertinent Rules are:

§ 13.1 Requirement

> The international application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept ("requirement of unity of invention").
>
> § 13.2 Circumstances in Which the Requirement of Unity of Invention Is to Be Considered Fulfilled
> Where a group of inventions is claimed in one and the same international application, the requirement of unity of invention referred to in Rule 13.1 shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.
>
> § 13.3 Determination of Unity of Invention Not Affected by Manner of Claiming
> The determination whether a group of inventions is so linked as to form a single general inventive concept shall be made without regard to whether the inventions are claimed in separate claims or as alternatives within a single claim.
>
> § 13.4 Dependent Claims
> Subject to Rule 13.1, it shall be permitted to include in the same international application a reasonable number of dependent claims, claiming specific forms of the invention claimed in an independent claim, even where the features of any dependent claim could be considered as constituting in themselves an invention.

Applying these rules to the Applicant's invention, it becomes clear that the special feature linking the inventions is not simply the "styrene block copolymer". Rather, Applicant's invention is directed to a novel styrenic block copolymer with specific characteristics (glass transition temperature, Tg, for example) combined with a second thermoplastic resin and an oil. Indeed, Applicant's invention may only be 65% of the styrenic block copolymer in a particular embodiment. It is the whole composition, including the styrenic copolymer, invented by Applicant that unifies the invention; the composition as a whole is the special feature encompassed by Applicant's claims that ties them together. The styrene block copolymer combined with the second thermoplastic

resin and the oil form the composition that is claimed in claims 11-21 and used in claims 22-33 in extruded and blown films. Thus, Applicant's novel composition is the defining element of the claimed invention and sufficient to "form a single general inventive concept" and satisfy Rule 13.1.

As such, Applicant respectfully requests Examiner cancel the restriction requirement. In the alternative, Applicant elects claims 11-21 for continued prosecution.

Claim Objections

The Examiner objects to claim 21 under 37 C.F.R. 1.75(c) as being improper for depending on canceled claim 10. Applicant has amended claim 21 to depend on claim 11. Thus, claim 21 is now in proper form for allowance.

Examiner rejects claims 11-20 "under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, 35 U.S.C. 103(a) as being unpatentable over Ouhadi (EP 921153) or Zhang et al. (WO 0119920) and under 35 U.S.C. 102(a or e) as being anticipated by or, in the alternative, 35 U.S.C. 103(a) as being unpatentable over Varma (US 2002/0160137)."

The Examiner rejects Applicant's invention as anticipated by EP0921153 to Ouhadi, or in the alternative as obvious in view of Ouhadi. However, there are numerous differences between Applicant's invention and the teachings of Ouhadi. Ouhadi teaches a blend of polar and non-polar thermoplastic elastomers, made compatible in a single composition wherein a compatibilizer is used to facilitate the blending of the composition. Specifically, Ouhadi teaches that the non-polar thermoplastic elastomer comprises between 50-98% by weight, most preferably 70-90%, of the blend. Also, Ouhadi teaches that the polar component is between 50-2% by weight of the total blend. Ouhadi uses polar thermoplastics selected from thermoplastic urethane, chloro contanining polymers, fluoro containing polymers, polyesters, acrylonitirile-butadiene-styrene copolymers, styrene-acrylonitrile copolymer, styrene-maleic anhydride

compolymer, polyacetal, polycarbonate, and polyphenylene oxide. Moreover, Ouhadi teaches that it is necessary to utilize a compatibilizer in order to achieve the blend between the polar and non-polar components.

In contrast to the teachings of Ouhadi, Applicant's invention utilizes a polar styrenic block copolymer that comprises at least 65% of Applicant's composition. Specifically, Applicant uses a styrenic block copolymer having a molecular structure of S-(I/B)-S or [S-(I/B)]nX wherein each S independently is a polymer block of predominantly styrene and (I/B) is a substantially random polymer block of predominantly isoprene and butadiene in a mutual weight ratio in the range of from 30/70 to 70/30. Thus, Applicants polar thermoplastic is not the same as the thermoplastic taught by Ouhadi. Also, the major component of Ouhadi is the non-polar thermoplastic while the major component of Applicant's invention is the polar thermoplastic. Further, Applicants invention requires an oil. Specifically, Applicant's claim 11 claims as component c "from 0 to 10 wt% of a plasticizing oil." Ouhadi fails to teach the use of an oil in its disclosure.

Also, Applicants invention requires that the polymer block represented by (I/B) have a glass transition temperature (Tg) of at most -60°C. Ouhadi is silent with respect to any requirements of glass transition temperature. The focus of Ouhadi is to teach a method by which polar thermoplastics are combined with non-polar thermoplastics to make a blend possessing the benefits of both non-polarity and polarity. To achieve this result, Ouhadi teaches that a compatibilizer is necessary. In contrast, the focus of Applicant's invention is a composition used in transparent, gel free films. Thus, Applicant's invention necessarily is limited by specific Tg values where Ouhadi is not.

The teachings and disclosures of Ouhadi do not render Applicant's invention obvious. The Examiner rejects Applicants' invention in view of Ouhadi stating that "it would still have been obvious to one of ordinary skill in the art, at the time the invention was made, to arrive at the same inventive composition because the disclosure of the inventive subject matter appears within the generic disclosure of the prior art."

Applicant respectfully disagrees with the Examiner, specifically for the reasons stated above. Ouhadi teaches that the main component in its composition is a ***non-polar*** thermoplastic. This teaches away from Applicant's invention. Applicant's invention instead uses a polar styrenic block copolymer. In addition, the weight percentages of styrenic block copolymer disclosed in Applicant's invention is significantly different from Ouhadi's teachings. Applicant's invention requires a minimum of 65% by weight of the block copolymer. As such, the differences between the teachings of Ouhadi and Applicant's invented composition are such that Applicant's invention is not taught or rendered obvious in view of Ouhadi.

The Examiner also rejects Applicant's invention as anticipated by, or in the alternative, obvious in view of Zhang et al. However, like Ouhadi, Zhang et al. do not teach Applicant's invention. While Zhang et al. do teach a styrenic block copolymer, the copolymer taught by Zhang does not have the same characteristics of Applicant's invention. Zhang et al. are focused on providing a polymer usable in a microscopically-expanded, three-dimensional, elastomeric web that is ultimately used in bandages, dressings, and wraps. Zhang et al. teach that the preferred composition of its polymer is "about 55 wt % of a styrenic-olefinic triblock copolymer, about 15 wt% of polystyrene, and about 30 wt% of mineral oil."[1] Thus, Zhang et al. teach a composition using only 55% styrenic copolymer, 15wt% of a secondary polymer (polystyrene), and 30% wt % of an oil. Also, Zhang et al. focus on the use of polystyrene-ethylene/butylenes-polystyrene (SEBS) and polystyrene-ethylene-ethylene/propylene-styrene (SEEPS) block copolymers. Regarding these block copolymers, Zhang et al. teach that the styrene content should be "in excess of about 10wt%."[2] In addition, Zhang et al. require the composition to include at least one vinyl arene.

In contrast to the teachings of Zhang et al., Applicant's invention uses a much higher concentration of the styrenic block copolymer. Specifically, Applicant's invention utilizes at least 65 wt% of the styrenic block copolymer. Further, Applicant's

[1] See pg 6, paragraph 71.
[2] See pg. 7, paragraph 79.

invention does not use SEBS or SEPS. Instead, Applicant's invention discloses the use of a styrenic block copolymer having a molecular structure of S-(I/B)-S or [S-(I/B)]nX wherein S is styrene and (I/B) is a block of isoprene and butadiene. Applicant's invention does not include block copolymers with the structure of SEBS or SEEPS. Indeed, Applicant's disclosure states that the isoprene and butadiene mid-blocks should be prepared from "substantially pure styrene or mixtures comprising at least 95 wt % of styrene ... and substantially pure butadiene or mixtures comprising at least 95 wt % of butadiene." Applicant's invention goes on to state that "preferred block copolymers to be applied according to the present invention contain blocks of substantially pure styrene and mixtures of substantially pure isoprene and butadiene." Moreover, Applicant's invention does not allow for the use of a vinyl arene.

The Examiner rejects Applicants' invention in view of Zhang et al. stating that "it would still have been obvious to one of ordinary skill in the art, at the time the invention was made, to arrive at the same inventive composition because the disclosure of the inventive subject matter appears within the generic disclosure of the prior art." Applicant respectfully disagrees that Zhang et al. disclose, teach, or even suggest, Applicant's invention. In fact, the teachings and disclosures of Zhang et al. teach away from Applicant's invention. As discussed above, Zhang et al. teach a polymer usable in a microscopically-expanded, three-dimensional, elastomeric web that is ultimately used in bandages, dressings, and wraps. Zhang et al. teach that the preferred composition of the polymer is "about 55 wt % of a styrenic-olefinic triblock copolymer, about 15 wt% of polystyrene, and about 30 wt% of mineral oil." Zhang et al. teach a composition using only 55% styrenic copolymer, 15wt% of a secondary polymer (polystyrene), and 30% wt % of an oil. Moreover, Zhang et al. teach that the preferred structure of the block copolymer used is either SEBS or SEEPS. This disclosure does not suggest or teach Applicant's composition.

In contrast to the teachings of Zhang et al., Applicant's invention uses a totally different block copolymer structure (S-(I/B)-S or [S-(I/B)]nX) using totally different concentrations of the polymer (at least 65 wt%). Also, Zhang et al. teach that

the polystyrene content can be as low as 10%. This is in direct contrast to Applicant's invention, and, indeed, teaches away from Applicant's invention. As such, the differences between the teachings of Zhang et al. and Applicant's invented composition are such that Applicant's invention is not rendered obvious in view of Zhang et al.

The Examiner rejects Applicant's invention as anticipated by, or in the alternative obvious in view of Varma. The teachings of Varma are directed to creating a gas impermeable seal from a typically gas permeable thermoplastic elastomer. Thus, Varma is directed to the conversion of a thermoplastic elastomer with unsatisfactory oxygen permeability to one that is oxygen impermeable. Varma teaches that the method by which this conversion is accomplished is plasticizing the elastomer with a "plastic" polymer. Varma teaches blending the thermoplastic elastomer with "polybutene," which Varma defines as isobutylene, homo- and/or copolymers. Varma states that the SBS polymers typically have unacceptable oxygen permeability until they are blended with the polybutene. Varma teaches that blending often results in a polymer that has too high a degree of tackiness, thus necessitating the addition of polybutene oil. Further, Varma teaches that in some instances it is necessary to add a detackifier to the blend.

Varma is concerned and directed to the hardness of the polymers and polymer blend. Specifically, Varma teaches that the SBS blend must have a hardness of Shore A 30 up to 90. Varma is silent with respect to any requirements regarding glass transition temperatures for the SBS polymers, only addressing the Tg values as a result of the hardness characteristics. Also, Varma teaches that the preferred polymer is styrene-ethylene-butylene-styrene (SEBS) copolymer, having an average molecular weight of from about 80,000 to 500,000.

In contrast, Applicant's invention comprises styrenic block copolymer having a molecular structure of S-(I/B)-S or [S-(I/B)]nX wherein S is styrene and (I/B) is a block of isoprene and butadiene. Applicant's invention does <u>not</u> include block copolymers with the structure of SEBS. Moreover, Applicant's invention calls for a styrenic block copolymer with an average molecular weight of between 110,000 and 160,000; a much

narrower range than that disclosed by Varma. Further, Applicant's invention does not use a detackifier. Thus, Varma does not teach a composition that anticipates Applicant's invention.

The disclosure and teachings of Varma do not render Applicant's invention obvious. The Examiner rejects Applicants' invention in view of Varma stating that "it would still have been obvious to one of ordinary skill in the art, at the time the invention was made, to arrive at the same inventive composition because the disclosure of the inventive subject matter appears within the generic disclosure of the prior art." Applicant respectfully disagrees with the Examiner, specifically for the reasons stated above. More particularly, Varma teaches and is directed to controlling the hardness of the polymers and polymer blend. Varma teaches an SBS blend that has a hardness of Shore A 30 up to 90. Varma does not teach any requirements regarding glass transition temperatures for the SBS polymers, only addressing the Tg values as a result of the hardness characteristics. Also, Varma teaches that the preferred polymer is styrene-ethylene-butylene-styrene (SEBS) copolymer, having an average molecular weight of from about 80,000 to 500,000. Further, Varma teaches a method involving plasticizing the elastomer with a "plastic" polymer – i.e., blending the thermoplastic elastomer with isobutylene, homo- and/or copolymers until the blended polymer has attained an acceptable oxygen permeability characteristic. Also, Varma teaches the addition of a detackifier to the blend.

In contrast, Applicant's invention requires a minimum of 65% by weight of the block copolymer with the structure S-(I/B)-S or [S-(I/B)]nX and does not allow the use of SEBS polymer. Thus, Varma teaches away from Applicant's invention. Varma teaches adjusting the polymer to attain certain gas permeability characteristics yet is silent regarding any glass transition temperature requirement. This teaches away from Applicant's invention because Applicant's invention requires specific glass transition temperature characteristics and is not concerned with gas permeability. Thus, one skilled in the art would not look to Varma for guidance on a method to manufacture Applicant's composition. Moreover, it is not necessary to add detackifier to Applicant's

composition. As such, the differences between the teachings of Varma and Applicant's invented composition are such that Applicant's invention is not taught or rendered obvious in view of Varma.

The Examiner further states that Applicant's invention is obvious over the cited art (Ouhadi, Zhang et al., and Varma) because "one of ordinary skill in the art would have found it *prima facie* obvious to determine a workable or even optimal Tg range for the diene center blocks, based on the final application." Applicant again respectfully disagrees with the Examiner for substantially the same reasons previously discussed, namely, the block copolymer in Applicant's invention is not the same as the block copolymers disclosed in Ouhadi, Zhang et al., and Varma. It is the composition that Applicant is claiming, not simply the diene center blocks of the copolymer. Specifically, independent claim 11 claims a "composition ... comprising" and then lists three, distinct components of the composition. Only the first component is the styrenic block copolymer with specific glass transition temperature characteristics. There are two additional components required to comprise Applicant's invented composition. Regardless, even if one looks specifically at the styrenic block copolymer and its characteristics, including structure, average number molecular weight, and glass transition temperature, the polymer disclosed by Applicant is not disclosed, taught, or suggested by the cited art. Thus, Applicant's invention is not rendered obvious in view of Ouhadi, Zhang et al., or Varma.

CONCLUSION

It is believed that this Application is now in condition for Examination and such is solicited.

Respectfully submitted,

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